

**OCCUPATIONAL SAFETY
AND HEALTH STANDARDS BOARD**

2520 Venture Oaks Way, Suite 350

Sacramento, CA 95833

(916) 274-5721

FAX (916) 274-5743

Website address www.dir.ca.gov/oshsb

Attachment No. 2

INITIAL STATEMENT OF REASONS

CALIFORNIA CODE OF REGULATIONS

TITLE 8: Division 1, Chapter 4, Subchapter 4, Article 2, Section 1504;
Article 21, Section 1637, and Appendix C, Plate C-17 of the Construction Safety Orders; and
Subchapter 7, Article 23, Section 3622 of the General Industry Safety Orders

Scaffold Plank Design RequirementsSUMMARY

This rulemaking action was initiated by the Division of Occupational Safety and Health (Division) in its memorandum to the Occupational Safety and Health Standards Board (Board), dated December 22, 2006. The Division noted an increase in use of engineered and manufactured types of scaffold planking, particularly planks made from laminated veneer lumber (LVL). The Construction Safety Orders (CSO) standards addressing scaffold planking focus primarily on solid sawn Douglas Fir planking or planking products equivalent to solid sawn products. The standards do not adequately address scaffold planking made from products other than solid sawn lumber. In its memorandum, the Division indicated that the substantial differences between solid sawn plank and LVL plank and other engineered/manufactured planking products is such that determining equivalency is difficult to assess for both the Division and employers.

The proposal clarifies that solid sawn planking products other than Douglas Fir are acceptable for scaffold plank provided that appropriate lumber grading rules are met. The proposal addresses the design and strength requirements for manufactured planking and requires such planking to be used in accordance with the manufacturer's specifications. The Division and lumber inspection agencies have noted that some LVL planking products have substandard bonding and adhesive properties. The proposal would require that LVL planking manufactured after the effective date of the proposal bear the seal of an independent, nationally recognized inspection agency prior to being placed into service. Among other provisions, the proposal also establishes planking deflection limits consistent with federal OSHA standards. Finally, the proposal would require visual inspections of planking for defects and that damaged scaffold planks are not used and be removed from service.

SPECIFIC PURPOSE AND FACTURAL BASIS OF PROPOSED ACTION

Section 1504. Definitions.

Existing Section 1504 defines a broad category of words and terms used throughout the CSO. The definition for “Lumber” includes a list of terms defined in alphabetical order and existing subsection (C) provides the definition for “Structural Plank” that would be used with scaffolds to provide a working platform. The current definition of structural planking refers only to Douglas Fir plank products that meet the appropriately listed lumber grading rules. However, Southern Pine is the predominant species of wood used for scaffold planking. Under the definition for “Structural Plank”, the proposal adds definitions for Southern Pine and other solid sawn scaffold planking that meet the appropriate lumber grading rules for scaffold planking.

The proposal is necessary to provide clarity and expand the definition of “structural plank” to include other species of wood that are available and used for scaffold planking.

Section 1637. General Requirements.

Section 1637 contains a number of provisions addressing the design, construction and use of scaffolds.

Subsection (f)

Existing subsection (f) contains provisions for scaffold planking and focuses primarily on solid sawn wood planking and the related permissible spans for the use of such planking. An amendment is proposed to add an introductory sentence to subsection (f) showing that the subsection includes provisions for solid sawn scaffold planking and manufactured planking such as, laminated wood planking, metal planking, and planking manufactured from other materials.

The amendment is necessary to broaden the scope of subsection (f) to include the types of scaffold planking products available. An amendment is also proposed for subsection (f)(1) to clarify that this subsection is applicable to solid sawn planking products.

Subsection (f)(2)

Subsection (f)(2) is reformatted as subsections (f)(2)(A) and (B). An amendment is proposed for subsection (f)(2)(A) to state that the permissible span table is specific to Douglas Fir and Southern Pine scaffold planking. The term “live” load essentially means the “working load” and is parenthetically inserted into the chart of subsection (f)(2)(A) for clarity and consistency with other subsections in proposed Section 1637.

New subsection (f)(2)(B) would require that the maximum permissible spans allowed for other wood species of scaffold planking to be determined by a licensed professional engineer. The

amendments are necessary to provide the permissible spans specific for the type of wood planking used.

Subsection (f)(3)

A new subsection (f)(3)(A) is proposed that would require manufactured planking as described in this subsection to be capable of supporting, without failure, its own weight and 4 times the maximum intended working (live) load.

The effect of this subsection is to provide suitable strength requirements for planking, fabricated or manufactured, from various materials that is consistent with the overall safety factor required for scaffold systems.

Existing subsection (f)(3) is relocated in part to new proposed subsection (f)(3)(B) with editorial changes consistent with the other portions of the proposal. Proposed new subsection (f)(3)(C) is necessary to ensure that manufactured scaffold planks are used in accordance with the manufacturer's specifications.

Subsection (f)(4)

Language in existing subsection (f)(4) stating that all planks shall be capable of safely sustaining the intended load is proposed for deletion as the proposal provides specific criteria for the safe and suitable use of scaffold planking.

An amendment is proposed to require that prior to being placed in service, all LVL scaffold planks manufactured after the effective date of the regulation be labeled with the seal of an independent, nationally recognized, inspection agency certifying compliance with ASTM D 5456-09a and ANSI/ASSE A10.8-2001, Section 5.2.10. An informational NOTE for this subsection provides that ASTM D 5456-09a is the standard for the evaluation of structural composite lumber products (which includes LVL products). This NOTE also states that ANSI/ASSE A10.8-2001, Section 5.2.10 requires the inspection agency to certify that LVL scaffold planks are compliant with the design criteria in the ANSI/ASSE A10.8 standard.

This Division initiated this rulemaking action in large part because an increasing number of inferior LVL scaffold planks were being sold in California having sub-standard bonding and adhesive qualities causing them to delaminate prematurely rendering them defective for safe use as scaffold planking. The proposed amendments will have the effect of ensuring that bonding and adhesive properties of LVL planking are suitable for safe use. The seal of an independent inspection agency is already required in the ANSI A10.8 consensus standard for scaffold related safety requirements and is necessary to provide the manufacturer guidance and the employer reasonable assurance that the product is suitable for use as scaffold planking.

New Subsection (f)(5)

A new subsection (f)(5) would require that prior to being placed into service, all solid sawn wood scaffold planks be certified by, or bear the grade stamp of, a grading agency approved by the American Lumber Standards Committee (ALSC). The ALSC is the appropriate accreditation/oversight organization for agencies inspecting solid sawn lumber products including scaffold planking. The provisions in this subsection have been a long standing requirement in the ANSI A10.8 consensus standard for scaffold safety requirements.

This provision is necessary to provide the employer reasonable assurance that the planking is suitable for use with scaffold systems.

New Subsection (f)(6)

A new proposed subsection (f)(6) would require all scaffold planks to be visually inspected for defects before use each day.

This provision is necessary to ensure that regular inspections of scaffold planking to identify planks that are defective/damaged.

New Subsection (f)(7)

A new proposed subsection (f)(7) is necessary to require that defective or damaged scaffold planks are not used and removed from service.

New Subsection (w)

A new proposed subsection (w) would require that platforms, including, but not limited to, solid sawn wood planks, engineered wood products, laminated veneer lumber, metal, composite, plastic, or any other manufactured planks, shall not deflect more than 1/60 of the span when loaded to the manufacturer's recommended maximum load.

This amendment is necessary for equivalency with a similar federal OSHA standard in 29 CFR 1926.451(f)(16) and would have the effect of reducing the likelihood that scaffold platforms or planking would be overloaded.

Construction Safety Orders, Appendix C, Plate C-17 "Suggested Test For Scaffold Planks"

Plate C-17 includes a simple impact field test for scaffold planks that involves loading the plank with personnel and listening for cracking sounds and looking for splitting wood. It was determined that the suggested test was subjective, did not include appropriate weight/load limits, and could result in overloading a scaffold plank in the testing process.

It is proposed to delete Plate C-17 in its entirety which is necessary to remove a suggested testing method that is obsolete and possibly could damage scaffold planking.

General Industry Safety Orders (GISO), Article 23. “Mobile Ladder Stands and Scaffolds (Towers)”

Section 3622. General.

GISO, Article 23 contains requirements for mobile work platforms, ladder stands and mobile scaffolds. Section 3622 includes general requirements for certain mobile scaffolds.

Subsection (f). Work Levels.

Existing subsection (f) includes provisions for the work level platforms of mobile scaffold towers and states that work level platforms shall be made of wood, aluminum, or plywood planking, steel or expanded metal for the full width of the scaffold, except for necessary openings. This subsection also states in part, that all planking shall be Douglas Fir or equivalent. An informational NOTE refers to the appropriate lumber grading rules for wood planking. The existing standard has clarity concerns similar to those that prompted amendments for CSO, Section 1637. There are substantial differences between solid sawn plank and LVL plank, as well as other engineered/manufactured planking products, so that determining equivalency to Douglas Fir is difficult for both the Division and employers.

Amendments are proposed to delete references to various types of planking design materials and to delete the informational NOTE in subsection (f). A proposed amendment in subsection (f)(5) states that all scaffold platforms shall meet the requirements of CSO, Section 1637.

The proposed amendments are necessary to provide clarity and consistency with provisions in the CSO that pertain to scaffold platforms and planking.

DOCUMENTS RELIED UPON

1. Memorandum from the Division of Occupational Safety and Health to the Occupational Safety and Health Standards Board, dated December 22, 2006, with attachments.
2. Standard Grading Rules for Southern Pine Lumber, effective July 1, 2002, Sections 501 and 502.
3. American Society for Testing Materials (ASTM) D 5456 – 09a, Standard Specification for Evaluation of Structural Composite Lumber Products, published June 2009.
4. American National Standards Institute (ANSI) A10.8-1988, Standard for Construction and Demolition Operations – Scaffolding – Safety Requirements.

5. ANSI/American Society of Safety Engineers (ASSE) A10.8-2001, Safety Requirements for Scaffolding-American National Standard for Construction and Demolition Operations.

These documents are available for review Monday through Friday from 8:00 a.m. to 4:30 p.m. at the Standards Board Office located at 2520 Venture Oaks Way, Suite 350, Sacramento, California.

REASONABLE ALTERNATIVES THAT WOULD LESSEN ADVERSE ECONOMIC IMPACT ON SMALL BUSINESSES

No reasonable alternatives were identified by the Board and no reasonable alternatives identified by the Board or otherwise brought to its attention would lessen the impact on small businesses.

SPECIFIC TECHNOLOGY OR EQUIPMENT

This proposal will not mandate the use of specific technologies or equipment. The proposal addresses provisions for various types of scaffold planking that are currently available and used with scaffold systems.

COST ESTIMATES OF PROPOSED ACTION

Costs or Savings to State Agencies

No costs or savings to state agencies will result as a consequence of the proposed action.

Impact on Housing Costs

The Board has made an initial determination that this proposal will not significantly affect housing costs.

Impact on Businesses

The Board has made a determination that this proposal will not result in a significant statewide adverse economic impact directly affecting businesses, including the ability of California businesses to compete with businesses in other states. The proposal includes a provision that scaffold planking be visually inspected before use which is not a new concept and employers should already be including inspections of equipment as part of their Injury and Illness Prevention Programs.

Scaffold plank manufacturers attended the advisory committee for this rulemaking and stated that the provisions that pertain to plank design and strength in this proposal are currently being met by legitimate manufacturers that produce scaffold planking suitable for use with scaffold systems. The proposal would require the seal of an independent nationally recognized inspection agency for laminated veneer lumber (LVL) scaffold planking prior to it being placed into

service. Manufacturers indicated that this third party quality assurance inspection/monitoring of scaffold plank production is not a new concept and is standard practice for scaffold plank manufacturers and no new or significant costs are anticipated. A similar grade stamp or certification provision is included for solid sawn scaffold planking which has been a long standing requirement in national consensus standards for scaffold safety requirements and no new or significant costs are anticipated.

Cost Impact on Private Persons or Businesses

The Board is not aware of any cost impacts that a representative private person or business would necessarily incur in reasonable compliance with the proposed action.

Costs or Savings in Federal Funding to the State

The proposal will not result in costs or savings in federal funding to the state.

Costs or Savings to Local Agencies or School Districts Required to be Reimbursed

No costs to local agencies or school districts are required to be reimbursed. See explanation under "Determination of Mandate."

Other Nondiscretionary Costs or Savings Imposed on Local Agencies

This proposal does not impose nondiscretionary costs or savings on local agencies.

DETERMINATION OF MANDATE

The Occupational Safety and Health Standards Board has determined that the proposed standards do not impose a local mandate. Therefore, reimbursement by the state is not required pursuant to Part 7 (commencing with Section 17500) of Division 4 of the Government Code because the proposed amendments will not require local agencies or school districts to incur additional costs in complying with the proposal. Furthermore, these standards do not constitute a "new program or higher level of service of an existing program within the meaning of Section 6 of Article XIII B of the California Constitution."

The California Supreme Court has established that a "program" within the meaning of Section 6 of Article XIII B of the California Constitution is one which carries out the governmental function of providing services to the public, or which, to implement a state policy, imposes unique requirements on local governments and does not apply generally to all residents and entities in the state. (County of Los Angeles v. State of California (1987) 43 Cal.3d 46.)

These proposed standards do not require local agencies to carry out the governmental function of providing services to the public. Rather, these standards require local agencies to take certain steps to ensure the safety and health of their own employees only. Moreover, these proposed

standards do not in any way require local agencies to administer the California Occupational Safety and Health program. (See City of Anaheim v. State of California (1987) 189 Cal.App.3d 1478.)

These proposed standards do not impose unique requirements on local governments. All state, local and private employers will be required to comply with the prescribed standards.

EFFECT ON SMALL BUSINESSES

The Board has determined that the proposed amendments may affect small businesses. However, no economic impact is anticipated as outlined under the heading "Impact on Businesses."

ASSESSMENT

The adoption of the proposed amendments to these standards will neither create nor eliminate jobs in the State of California nor result in the elimination of existing businesses or create or expand businesses in the State of California.

ALTERNATIVES THAT WOULD AFFECT PRIVATE PERSONS

No reasonable alternatives have been identified by the Board or have otherwise been identified and brought to its attention that would be more effective in carrying out the purpose for which the action is proposed or would be as effective and less burdensome to affected private persons than the proposed action.